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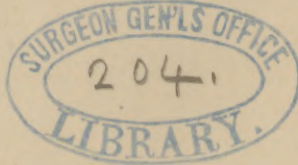
AS AN ETIOLOGICAL FACTOR IN THE PRODUCTION OF

NASAL DISEASE.

BY

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IRRITATION OF THE SEXUAL APPARATUS AS AN ETIOLOGICAL FACTOR IN THE PRODUCTION OF NASAL DISEASE.

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*"Balnea, vina, Venus corrumpunt corpora nostra,
At faciant vitam, balnea, vina, Venus."*

THE evil effects of undue excitation or disease of the generative apparatus upon the organs of sight and hearing are well known to specialists in these departments. That immoderate indulgence in venery may lead to derangements of the former, was familiar to Aristotle,² and that the fathers of medicine recognized some mysterious connection between the ear and the reproductive functions is evident from the testimony of Hippocrates.³ Over two centuries ago, Rolfinc⁴ wrote: "*Qui partibus genitalibus abutitur, et sexto præcepto vim infert, male audit,*" a proposition which has been fully established by the clinical experience of to-day.

The intimate relationship between the genital organs and those of the throat and neck seems to have attracted the special attention of the ancients. Thus Aristotle⁵ clearly defines the changes in the voice at puberty, and the effect of castration on its qualities.⁶ Its harsh, irregular, and discordant character during the maturation of the sexual functions was furthermore affirmed to be more conspicuous in those who attempted the early gratification of the sexual appetite. The observation that, during coitus, the voice becomes rougher and less acute, led the phonasci or voice-trainers to infibulate, or confine the penis with bands and fetters, to preclude indul-

¹ Read Jan. 15, 1884, before the Baltimore Academy of Medicine.

² Aristot. opera omnia græco-latīn. Parisiis, 1854. De animalium generatione, lib. ii., cap. 7.

³ Opera omnia, Ed. Kühn, Lipsiæ, 1827, tom. i. p. 562.

⁴ Ordo et methodus generatione dicatarum partium, per anatonen, cognoscendi fabricam. Jenæ, 1664, part i. cap. vii. p. 32.

⁵ Op. cit. De animal. historiâ, lib. vii. cap. i.

⁶ Op. cit. De animal. generatione, lib. v. cap. 7.

gence in wantonness,¹ whilst the popular idea of the injurious effect of repeated coition upon the singing voice is reflected in the epigram of the Roman satirist:—

*“ Cantasti male, dum fututa es, Ægle.
Iam cantas bene; basianda non es.”*²

The supposed influence of sexual excitement upon the external throat is likewise apparent from the ancient nuptial ceremonial. Before the virgin retired with her lord on the wedding night, it was customary to measure her neck with a tape, and again on the following morning. If the neck showed an increase in size, it was taken as a certain indication of defloration, whilst, if the two measurements were equal, she was supposed to have retained her virginity. This curious test, which has also been utilized to establish the fact of adultery, has been transmitted to us in the *Epithalamium* of Catullus:—

*“ Non illam nutrix, oriente, luce revisens,
Hesterno collum poterit circumdare filo.”*³

Whilst, therefore, the above historical facts point to the early recognition of the relationship between over-indulgence of the sexual powers and morbid conditions of the eye, ear, and throat, the special part which it plays in the production of nasal disease seems to have been heretofore overlooked.

In the *Ayurvēda*, the sacred medical classic of the ancient Hindus, a work of fabulous antiquity, the causes of common catarrh are thus tersely defined:—

*“ Uxoris concubitus, capitis dolor, fumus, pulvis, frigus,
Vehemens calor, retentio urinae sæcumque statim
Catarrhi causæ dictæ sunt.”*⁴

¹ J. Riolani *Anthropographiæ*, lib. ii. cap. 34, p. 303, Francofurt, 1626. Riolanus quotes from the *Musæum* of Albertus Magnus the case of a girl, sent to fetch wine from a public house, who was seized and ravished on the road, and who found, in attempting to sing on her return, that her voice had changed from acute to grave.

² Martial, *Epig.* Lib. I. xcv. ad Æglen fellatricem.

³ *Epithal.* Pelei et Thetidos, lxiv. Catulli op. omn., Lond., 1822, p. 230. This phenomenon was variously attributed to the dilatation of the vessels of the neck by the semen, a portion of which, according to the Hippocratic doctrine, flowed down from the brain during intercourse, and to the general agitation of the vascular system, and especially the arterial and venous trunks of the throat, during the excitement of the sexual act.

⁴ *Susrutas Ayurvēdas : id est Medicinæ Systema*, a venerabili D'hauvantare demonstratum a suo discipulo compositum. Translated from the Sanskrit into Latin, by Franciscus Hessler, Erlangen, tom. iii. cap. xxiv. p. 44, 1850. (Library Surg. Gen. Office.)

As matters of historical interest, I may here add, that the earlier physiognomists laid great stress upon the size and form of the nose as an indication of corresponding peculiarities in the penis. A nose, for example, that was large and firm was looked upon as an index of a penis acceptable to women, and hence it was that the licentious Heliogabalus only admitted those who were *nasuti*, i. e., who

Although indulgence in venery heads the list, it is highly probable that its real influence was unrecognized, and that it is given as an etiological factor simply in accordance with the seemingly prevalent idea which pervades the Indian Shastras, that venery and confinement of the bowels lay at the root of most diseases. Indeed, the striking frequency with which these conditions are encountered as the alleged promoters of morbid states almost compels the inference that the religious members of this haughty race must have been the most constipated and libidinous of men.

To render the relationship which I propose to call attention to more intelligible, it is necessary to recall the anatomical fact, that in man, covering the middle and inferior turbinated bones and a portion of the septum, is a structure which is essentially the anatomical analogue of the erectile tissue of the penis. Like it, this body is composed of irregular spaces or erectile cells, separated by trabeculæ of fibrous connective tissue containing elastic and muscular fibres, the latter element being not as prominent and well marked as in the cavernous bodies of the generative organ. Under the influence of *ab extra* irritation, or as the result of psychical impressions, erection of this tissue takes place, the dilatation of its cells being, in all probability, under the direct dominion of vaso-motor nerves derived through the spheno-palatine ganglion. It is the temporary orgasm of these bodies that constitutes the anatomical explanation of the stoppage of the nostrils in acute coryza, and their permanent enlargement is the distinctive feature of hypertrophic nasal catarrh. This erectile area is, moreover, as has been elsewhere shown,¹ especially concerned in the evolution of the many curious reflex phenomena which are observed in connection with nasal affections. Indéed, the changes which it undergoes seem to lie at the foundation of nasal pathology, and furnish the key not only to the correct interpretation of nasal disease, but also to many obscure affections in other and remote organs of the body.

That an intimate physiological relationship exists between certain portions of the reproductive system and the erectile nasal tissue is sufficiently evident from the following facts:—

possessed a certain comeliness of that feature, to the companionship of his lustful practices. (*Vide* Ælius Lampridius in vita Antonii Heliogabalis, in Hist. Aug., etc. Beponi.) It was possibly the supposed influence of an elegant and handsome nose as an incentive to illicit amours, that led to the well-known custom of amputation of that organ in adulterers (Comp. Virgil, *Æneid*, vi. 497—“*truncas inhonesto vulnere nares*”), whilst in women detected in the act, the disfigurement thereby produced was intended as a perpetual reminder of their shame. (*Vide* Dioscorus Siculus in *Bibliothecæ Historicæ*. Paris ed., 1854, tom. i. lib. i. cap. lxxvii. (5), p. 64, on the customs and laws of the Ægyptians.) Finally, Bartholini (*Anatomia Reformata*, de Naso; also Lond. ed., bk. iii. chap. x. p. 150) tells us that Michael Scotus pretended to be able to diagnosticate virginity by touching the cartilage of the nose.

¹ This Journal, July, 1883, p. 106.

(1) That in a certain proportion of women, whose nasal organs are healthy, engorgement of the nasal cavernous tissue occurs with unvarying regularity during the menstrual epoch, the swelling of the membrane subsiding with the cessation of the catamenial flow. I have been able to satisfy myself of the correctness of this statement by direct ocular inspection of these bodies, before, during, and after the monthly period. Thus, I have seen the engorgement of the turbinated bodies take place at the onset of the menstrual molimen, reach its acme during the full establishment of the process, and disappear with the subsidence of the ovarian excitement. In a young lady under my care who menstruated in an irregular manner, occasionally omitting a monthly period without external flow, at such times the nasal erectile bodies became swollen and turgid as in the periods when all the external evidences of menstruation were present. This monthly turgescence of the nasal corpora cavernosa may be bilateral, or confined to one side, the swelling appearing first in one side and then in the other, the alternation varying with the epoch. This periodical erection may be inconsiderable and give rise to no inconvenience, or, on the other hand, the swollen bodies may occlude the nostril and awaken phenomena of a reflex nature, such as coughing, sneezing, etc., and in view of the heaviness of the head, the intimate vascular connection between the erectile spaces and the cerebral sinuses and the filling of the former in acute coryza, it seems legitimate to suppose that the headache which so often accompanies the consummation of the menstrual act may in some cases be partially, if not entirely, due to erection of the nasal turbinated structures. Whether the phenomena above described occur during pregnancy at periods corresponding to those of the menstrual flow, I am unprepared to say, as I have not as yet had sufficient opportunity to investigate the subject.

(2) The presence of vicarious nasal menstruation. It is a familiar fact that women are occasionally found in whom the menstrual function is established by a discharge of blood from the nostrils. This hemorrhage may be replaced afterwards by the uterine flow, but sometimes continues throughout the menstrual life of the individual. In the latter case, some malformation or derangement of the sexual apparatus seems to be responsible for the nasal flow. Epistaxis also occurs, now and then, from the suppression of the normal flux. This was considered a favourable sign by Hippocrates,¹ and by Celsus² who followed closely in his footsteps. These hemorrhages are, moreover, not confined to women, but make their appearance not infrequently in boys at puberty, upon the full development of their sexual powers.

¹ Op. omn. Ed. Kühn. Lipsiæ 1827, tom. ii. p. 174. De morbis, lib. i. and Aph. sect. 5, Art. 33.

² De medicina. Rotterdami, 1750, lib. ii. cap. 8.

(3) The well-known sympathy between the erectile portions of the generative tract and other erectile structures of the body. There is no reason why the sexual excitement which leads to congestion and erection of these organs may not, under similar circumstances, cause engorgement of the nasal erectile spaces, and that such is the case, in some instances, I am convinced.

(4) The occasional dependence of phenomena referable to the nose during sexual excitement, either from the operation of a physiological process, the erethism produced by amorous contact with the opposite sex, or during the consummation of the copulative act. The congestion and consequent irritation of the sensitive area thus brought about probably furnish the explanation of the sneezing which has been observed during the performance of the latter.¹

(5) The reciprocal relationship between the genital organs and those of the nasal apparatus is furthermore illustrated by the occasional dependence of genito-urinary irritation upon affections of the nasal passages. Retarded sexual development, too, may possibly depend upon the coexistence of nasal disease.²

(6) It is, finally, quite possible that irritation and congestion of the nasal erectile tissue precede, or are the excitants of the olfactory impression that forms the connecting link between the sense of smell and erethism of the reproductive organs exhibited in the lower animals and in those individuals whose amorous propensities are aroused by certain odours that emanate from the person of the opposite sex.

These facts point conclusively to an intimate physiological association between the nasal and reproductive apparatus, which is partially explicable on the theory of reflex or correlated action, partially by the bond of union which exists between the various erectile structures of the body. That a relationship exists by virtue of which irritation of the one reacts upon the circulation, and possibly, nutrition of the other, is accordingly rendered highly probable by the evidence of clinical observation. If this excitation be carried beyond its physiological limits, there comes a time, sooner or later, when that which is a normal process becomes translated into a pathological state, according to a well-known law of the economy. Hence it is *à priori* conceivable, and eminently probable, not only that stimulation of the generative organs, when carried to an excess, may become an etiological factor in the production of congestion and transient inflammation of the nasal passages, and especially of their cavernous

¹ Van der Wiel, in his *Observationes Rares de Médecine, de Chirurgie et d'Anatomie* (French trans.) (quoted by Deschamps. *Traité des mal. des fosses nasales et leur sinus*. Paris, 1804, p. 88) speaks of a man of sanguine temperament, who every time he caressed his wife, sneezed three or four times; Elsberg (*Archives of Laryngology*, Oct. 1883) refers to a case of nasal catarrh where sneezing followed or accompanied coitus, and a similar case has been communicated to me by Dr. R. Tilley, of Chicago.

² *Vide* case referred to by Elsberg (*loc. cit.*).

tissue, but that repeated and prolonged abuse of these organs may, by constant irritative influence on the turbinated tissue, become the starting-point of chronic changes in that structure.

The following data, derived from personal clinical observation, may possibly throw some light upon the subject.

(1) In a fair proportion of women suffering from nasal affections, the disease is greatly aggravated during the menstrual epoch, or when under the influence of sexual excitement. Cases are also met with where inflammatory conditions of the nasal passages make their appearance only at the monthly period, or, at least, are only sufficiently annoying at that time to call for medical attention. Occasionally the discharge from a nasal catarrh will become offensive at the menstrual epoch, losing its disagreeable odour during the decline of the ovarian disturbance. In most cases of *ozæna*, the fætor is much more pronounced, at times corresponding to those of the uterine flow.¹

(2) Excessive indulgence in venery seems to have a tendency to initiate inflammation of the nasal mucous membrane, or to aggravate existing disease of that structure. There are men, for example, who suffer from a coryza after a night's indulgence in venereal excesses, and the common catarrhal affections of the nose are undoubtedly exaggerated by repeated and unnatural coition.²

(3) The same is true in regard to the confirmed habit of masturbation. The victims of this vice in its latter stages are constantly subjected to a discharge from the nostrils and perversion of the olfactory sense, which are simply the outward expression of chronic nasal inflammation.

(4) The coexistence of uterine or ovarian disease exerts sometimes an important influence on the clinical history of nasal inflammation. This fact has been illustrated in practice in cases in which the nasal affection has resisted stubbornly all treatment, and in which it has only been relieved upon the recognition and appropriate treatment of disease of the generative apparatus.

These observations, therefore, encourage the belief, if they do not establish the fact, that the natural stimulation of the reproductive apparatus, as in coitus, menstruation, etc., when carried beyond its normal

¹ Since writing the above, I find that this exaggeration of the odour in *ozæna* is mentioned by Trousseau (Clin. Med., vol. iii. p. 70, New Syd. Soc. Ed.).

² Among the cases that suggested the investigation of this subject was that of a gentleman whom I met several years ago abroad, who always suffered from coryza after a night spent in venereal pleasures. It is interesting in this connection to recall the admonition of Celsus to abstain from warmth and women at the commencement of an ordinary catarrh. (Op. cit., lib. iv. cap. 2, § 4, "*ubi aliquid ejusmodi sentimus, protinus abstinere a sole, a balneo, a venere debemus.*") Hippocrates, on the other hand, relates the following case: "*Timochari hieme distillatione in nares præcipue vezato post Veneris usum cuncta ressicata sunt, lassitudo, calor et capitis gravitas successit, sudor ex capite multus manabat.*" Op. cit., De morbis vulgaribus, lib. v. (tom. iii. p. 574).

physiological bounds, or pathological states of the sexual apparatus, as in certain diseased conditions, or as the result of their over-stimulation from venereal excess, masturbation, etc., are often the predisposing, and occasionally the exciting causes of nasal congestion and inflammation. Whether this occurs through reflex action, pure and simple, or as the sequel of an excitation in which several or all of the erectile structures of the body participate, the starting-point of the nasal disease is, in all probability, the repeated stimulation and congestion of the turbinated erectile tissue of the nose. It is highly probable that this erectile area, so sensitive to reflex producing impressions, is the correlative of similar vascular areas in the reproductive tract, and that the phenomena observed may accordingly be explained by the doctrine of reflex or correlated action.

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